

## **REMARKS**

The pending claims relate to water-in-oil (W/O) emulsions containing a polyolefinic emulsifier having a polar component and a polyolefinic apolar component comprising at least 40 carbon atoms, wherein the oil phase comprises at least one hydrocarbon oil which represents at least 40% by weight relative to the total weight of the oil phase.

As noted in the present specification, W/O emulsions are desirable in the cosmetic and dermatological fields because such emulsions possess desirable properties such as, for example, forming a lipid film on skin after application to inhibit transepidermal water loss, to protect skin from external attacks and to increase the persistence of sunscreen agents, as well as protecting and carrying hydrophilic active agents sensitive to oxidation. (Page 1, lines 10-17). However, W/O emulsions have two major problems: (1) they generally are difficult to apply and lack cosmetic pleasantness upon application (that is, they feel heavy and greasy); and (2) they lack stability, particularly when the aqueous phase is substantial or when the emulsion is fluid. (Page 1, line 18 through page 2, line 8).

The presently claimed invention addresses such problems associated with W/O emulsions. Specifically, the claimed invention provides W/O emulsions containing a polyolefinic emulsifier having a polar component and a polyolefinic apolar component comprising at least 40 carbon atoms, wherein the oil phase comprises at least one hydrocarbon oil which represents at least 40% by weight relative to the total weight of the oil phase. Utilizing the claimed polyolefinic emulsifier yields W/O emulsions having beneficial and desirable characteristics, such as having a light and fresh feel upon application as well as possessing good stability, even when the aqueous phase of the emulsion is large or the emulsion is fluid. As such, the presently claimed invention represents an advance in the art deserving of patent protection.

In view of this background, each of the rejections made in the outstanding Office Action will be addressed in turn.

### **REJECTIONS UNDER 35 U.S.C. §112**

The Office Action has rejected claims 7 and 25 under 35 U.S.C. § 112, second paragraph, as being indefinite. Applicants respectfully submit that the above non-limiting amendments have rendered these rejections moot. Accordingly, Applicants respectfully request that the rejections under § 112 be withdrawn.

### **REJECTIONS UNDER 35 U.S.C. §§102 AND 103**

The Office Action has rejected claims 1, 4-7, 9, 11-16, 18-20, 22 and 24-28 under 35 U.S.C. § 102 as anticipated by U.S. patent 5,980,922 ("Mackey"), claims 1, 4-7, 9, 11-16, 18-20 and 22-28 under 35 U.S.C. § 103 as obvious over Mackey in view of Milady's Skin Care, and claims 1-16, 18-20 and 22-28 under 35 U.S.C. § 103 as obvious over Mackey in view of U.S. patent 4,708,753 ("Forsberg I"). In view of the following comments, Applicants respectfully request reconsideration and withdrawal of these rejections.

Mackey neither teaches nor suggest the presently claimed invention. Mackey relates to toilet paper to which W/O emulsions have been added. (See, Technical Field and Background Section). The oil phase in Mackey's emulsions is solidified, and this solidified oil phase "provides the essential stabilizing structure" for the water phase of Mackey's emulsions. (See, col. 9, lines 39-41). The major constituent of Mackey's solidified oil phase is wax. (Col. 9, lines 51-52). The solidified oil phase can contain minor amounts of other lipophilic or lipid-miscible materials. (Col. 10, lines 39-41).

In contrast, the claimed invention requires that the oil phase contain at least 40% by weight of at least one hydrocarbon oil. Incorporating this amount of hydrocarbon oil into the oil phase should not result in a solidified oil phase like Mackey's. Rather, the presence of such a significant amount of hydrocarbon oil should result in a fluid emulsion.

Thus, Mackey's external oil phase is solid and contains a significant amount of stabilizing wax, whereas the claimed invention is a fluid emulsion (e.g., milk or cream compositions) containing a significant amount of hydrocarbon oil, meaning among other things that the external oil phase is not solid. In short, Mackey does not disclose the claimed invention. Accordingly, Applicants respectfully request that the § 102 rejection based upon Mackey be reconsidered and withdrawn.

Regarding the rejections under 35 U.S.C. § 103, Milady's Skin Care and Forsberg I do not compensate for Mackey's deficiencies. Milady's Skin Care is cited only for its disclosure relating to fatty esters. Forsberg I discloses fluid explosive and/or acidic compositions which, by definition, cannot be applied to skin. In other words, Forsberg I's compositions are not physiologically acceptable. In contrast, Mackey's toilet paper can be --and, indeed, is intended to be-- applied to delicate areas of skin without risk of harm or injury. No motivation would have existed to combine Forsberg I's non-physiologically acceptable fluid explosives with Mackey's physiologically acceptable toilet paper.

Moreover, combining Forsberg I's fluid explosives with Mackey's solid emulsions would have rendered the resulting non-solid emulsions unsuitable for Mackey's purposes. Under such circumstances, combining these references to support a § 103 rejection is impermissible.

In view of the above, Applicants respectfully submit that the rejections under 35 U.S.C. § 103 are improper and should be withdrawn.

Applicants believe that the present application is in condition for allowance. Prompt and favorable consideration is earnestly solicited.

Respectfully submitted,

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**IN THE CLAIMS**

1. (Twice Amended) A physiologically acceptable composition, comprising:  
an aqueous phase dispersed in an oily phase, and an oligomeric or polymeric emulsifier comprising i) a polyolefinic apolar component comprising at least 40 carbon atoms and ii) at least one polar component, wherein said oily phase comprises at least one hydrocarbon oil and said at least one hydrocarbon oil is present in an amount of at least 40% by weight relative to the total weight of the oily phase.

7. (Twice Amended) The composition according to Claim 6, wherein the polar component of the emulsifier is selected from the group consisting of polyoxyethylene, succinic acid and succinic anhydride.

16. (Twice Amended) A physiologically acceptable cosmetic emulsion composition, comprising:

an aqueous phase dispersed in an oily phase, and an oligomeric or polymeric emulsifier comprising i) a polyolefinic apolar component comprising at least 40 carbon atoms and ii) at least one polar component, wherein said oily phase comprises at least one hydrocarbon oil and said at least one hydrocarbon oil is present in an amount of at least 40% by weight relative to the total weight of the oily phase.

19. (Twice Amended) A method of manufacturing a physiologically acceptable cosmetic W/O emulsion composition, comprising;

combining a physiologically acceptable aqueous medium in an amount such that water component of the cosmetic composition is at least 30% by weight of water relative to the total weight of the composition and an oily phase in the presence of at least one oligomeric or polymeric emulsifier comprising i) a polyolefinic apolar component comprising at least 40 carbon atoms and ii) at least one polar component, wherein said oily phase comprises at least one hydrocarbon oil and said at least one hydrocarbon oil is present in an amount of at least 40% by weight relative to the total weight of the oily phase.

25. (Amended) The composition according to Claim 1, wherein [wherein] the composition comprises at least 80% by weight of aqueous phase and at least 30% by weight of water relative to the total weight of the composition.

Claims 29-39 (New)

Claim 14 (Canceled)